



Canal Current

A wave of information for Cape Coral's Canalwatch volunteers

Newsletter: 3rd Quarter 2010

Environmental News

Festive Season

Milder weather is approaching soon (hopefully) and with that brings many opportunities to enjoy the outdoors comfortably. Here are a couple of nature festivals that you won't want to miss, and be sure to check the events calendar on the back page for other festivals this season.

CHNEP Nature Festival: The Charlotte Harbor National Estuary Program (CHNEP) is hosting its 11th annual nature festival at the Charlotte Sports Park. Gates open at 10:00 am and the festival wraps up at 3:00 pm.

There is much to do and see for adults and children alike and admission and parking are free.

For more information including vendor and volunteer information please visit www.chnep.org.

The Charlotte Sports Park is located at 2300 El Jobean Rd in Port Charlotte.

Caloosa Blueway Paddling Festival:

Starting on October 29th and extending to November 7th on Pine Island and Lovers Key State Park the Caloosa Blueway Paddling Festival includes activities that are free or require a small donation. Some events include; kayak races, catch-and-release fishing tournament and photo contest. Live music is performed on both weekends as well. For more information please visit caloosabluewaypaddlingfestival.com

Native Plant profile

Cabbage Palm

Sabal palmetto

This hardy palm is the Florida state tree and it is prevalent in landscapes as it is in its native habitats. The cabbage palm can grow up to 60 feet, is tolerant of varying light conditions and can withstand tropical storm and hurricane force winds.

The cabbage palm acquires its name from the heart of palm, which is the edible terminal bud located within the uppermost portion of the trunk. Removing the 'cabbage' will kill the palm, so it's best to let the small white flowers and small black fruits supply *wildlife* with nectar and food.



Sabal palmetto
Photo by Betty Wargo

**Please join us for the
2010 November Social**

Wednesday, November 3rd

10:30-11:30 am

Rotary Park

5505 Rose Garden Road

**We will have a guest speaker from the
Florida Fish and Wildlife Research Institute**

Donuts and coffee will be provided

You can bring your water sample!

Please RSVP (yes or no): 574-0785

Secchi Depth added to newsletter's data table

The data table on the following pages looks a bit different than it used to. NO₂ (nitrite), which was consistently below detection, has been replaced by Secchi Depth. The lab will still be analyzing NO₂ concentration, but unless there is an abnormal value, we will not report it in the newsletter.

A few reminders about Secchi Depth:

- Larger numbers are better. Secchi Depth is an indicator of water clarity – how deep can you lower the Secchi disk and still see it?
- If you see 'b' behind a data point, it means the Secchi disk was visible on the bottom of the canal – so if the canal were deep enough, the true Secchi Depth would be a higher number.
- Canalwatch volunteers measure Secchi Depth in inches. For the newsletter, all measurements have been rounded to the nearest inch.

Spotlight on Wildlife: Osprey

The Osprey is the only bird of prey that feeds exclusively on fish. Osprey are found all over the world (except Antarctica) near large bodies of water. They feed by flying over the water until they spot prey, then hovering over it and diving feet-first to catch it. Fun fact: while flying with a fish, an Osprey will hold it with its head pointed forward to make it more aerodynamic. In our part of Florida, Osprey are year-round residents, but birds north of the 29th parallel are migratory.



Osprey nest in tall trees or on manmade structures (like cell phone towers). They typically lay 3 eggs, which both parents help incubate. The eggs will hatch in about 38 days, and the young will fledge (leave the nest) when they are between 49 and 59 days of age.

Sources:

Cornell Lab of Ornithology <http://birds.cornell.edu>

FL Breeding Bird Atlas http://myfwc.com/bba/docs/bba_OSPR.pdf

WhatBird <http://identify.whatbird.com/obj/39/overview/Osprey.aspx>

Canalwatch Extra Field Data

3rd Quarter 2010

90A	Jul	Aug	Sept
DO	2.8	4.6	3.3
pH	7.2	8	7.4
Temp	28	32	28
Sal	-	4	1

43A	Jul	Aug	Sept
DO	3.2	4.6	2.1
pH	7.4	7.4	7.4
Temp	-	32	28.5
Sal	0	-	0

88B	Jul	Aug	Sept
DO	2	2.6	2.2
pH	7.2	7.4	7.4
Temp	-	33	28.5
Sal	1	0	0

80A	Jul	Aug	Sept
DO	2.85	3.4	2.6
pH	7	7	7.2
Temp	26	29	28
Sal	1	0	1

85C	Jul	Aug	Sept
DO	3.2	7.1	5.2
pH	7.4	7.6	7.4
Temp	-	32.5	29
Sal	0	-	0

Ft. Myers RECON			
	Jul	Aug	Sept
DO	4.97	4.85	6.49
Temp	27.9	31.7	28.6
Sal	0.21	1.98	0.25

RECON data provided by
SCCF Marine Laboratory
recon.sccf.org

16F	Jul	Aug	Sept
DO	6.6	7.8	7.2
pH	8.1	8.3	7.9
Temp	27	30	30
Sal	0	0	0

23B	Jul	Aug	Sept
DO	5.4	7.3	7
pH	7.6	7.9	7.8
Temp	-	33	29.5
Sal	0	-	0

22C	Jul	Aug	Sept
DO	7.5	7.2	6.6
pH	7.8	8	7.8
Temp	-	32	29.5
Sal	0	0	0

26D	Jul	Aug	Sept
DO	6.7	5.5	6.1
pH	7.7	7.8	7.6
Temp	27	30	28
Sal	0	1	1

	Full Name	Units
DO	Dissolved Oxygen	mg/L
pH	pH	--
Temp	Temperature	°C
Sal	Salinity	ppt

DO values that are below the state standard of 4 mg/L are highlighted in yellow.

Please see the 2nd quarter 2009 newsletter for a more in-depth explanation of these water quality measurements.

74B	Jul	Aug	Sept
DO	6.6	5.2	5.4
pH	8.2	8.6	8
Temp	28	30	29
Sal	1	3	3

10B	Jul	Aug	Sept
DO	4.1	4.65	
pH	7.8	7.8	
Temp	30	28	
Sal	5	-	

74C	Jul	Aug	Sept
DO	7.55	6.1	
pH	8.6	8.2	
Temp	31	30	
Sal	2	3	

70E	Jul	Aug	Sept
DO	3.15	3.55	4.95
pH	8.1	8.5	7.7
Temp	28	31	29
Sal	1	4	0

67A	Jul	Aug	Sept
DO	4.2	4.6	5.8
pH	7.8	8.2	7.8
Temp	-	32	30
Sal	9	5	9

4E	Jul	Aug	Sept
DO	5.3	6.05	
pH	8.4	8	
Temp	31	28.5	
Sal	6	4	

64C	Jul	Aug	Sept
DO	3.8		3.75
pH	7.6	8	
Temp	29	30	
Sal	9	10	

Shell Point RECON			
	Jul	Aug	Sept
DO	5.22	4.79	3.93
Temp	28.3	31.2	28.8
Sal	26.8	28.6	29.1

Canalwatch Lab Data, 3rd quarter 2010

bd = below detection

benchmark numbers: Marked data are in the highest 20% of values found by Hand et. al, 1988.

	July 2010						August 2010						September 2010						Avg TSI
	Secchi	NO ₃	NH ₃	TKN	T-N	T-PO ₄	Secchi	NO ₃	NH ₃	TKN	T-N	T-PO ₄	Secchi	NO ₃	NH ₃	TKN	T-N	T-PO ₄	
	(inches)	<1.0	none set	<2.0	<0.46	(inches)	<1.0	none set	<2.0	<0.46	(inches)	<1.0	none set	<2.0	<0.46				
3F	45	bd	bd	1.2	1.20	0.09	57	bd	bd	1.4	1.40	0.08	52	bd	bd	0.4	0.40	0.05	53.29
3G	52 b	bd	bd	1.5	1.50	0.08	-	-	-	-	-	-	-	-	-	-	-	-	63.57
4E	-	-	-	-	-	-	48	bd	bd	1.3	1.30	0.07	42	0.05	bd	0.5	0.55	0.12	54.30
6F	33	bd	bd	1.7	1.70	0.17	59	bd	bd	1.8	1.80	0.19	38	0.05	bd	0.6	0.65	0.15	59.37
6H	36	bd	bd	1.4	1.40	0.16	28	bd	bd	1.2	1.20	0.17	25	bd	bd	0.2	0.20	0.12	58.82
7B	20	0.07	bd	1.9	1.97	0.11	12	bd	bd	1.9	1.90	0.40	6	0.16	bd	0.6	0.76	0.14	80.15
10B	-	-	-	-	-	-	43	bd	bd	1.1	1.10	0.09	28	0.05	bd	0.4	0.45	0.08	57.34
11D	64 b	0.06	bd	2.2	2.26	0.17	46	bd	bd	2.0	2.00	0.13	53	bd	bd	0.6	0.60	0.12	62.08
13A	23	bd	bd	1.6	1.60	0.09	23	bd	bd	2.3	2.30	0.10	-	-	-	-	-	-	71.86
15D	52	0.06	bd	2.0	2.06	0.21	57	bd	bd	1.9	1.90	0.11	53	bd	bd	0.8	0.80	0.18	57.04
15E	-	-	-	-	-	-	-	-	-	-	-	-	23	bd	bd	0.9	0.90	0.16	65.02
16E	40 b	bd	bd	0.7	0.70	0.04	35 b	bd	bd	1.2	1.20	0.02	36	bd	bd	0.5	0.50	0.03	46.64
16F	36 b	bd	bd	0.8	0.80	0.02	36 b	bd	bd	0.5	0.50	0.02	24 b	bd	bd	1.0	1.00	0.02	38.15
16G	-	-	-	-	-	-	-	-	-	-	-	-	47	bd	bd	0.3	0.30	0.03	46.76
18G	27	bd	bd	1.3	1.30	0.04	32	bd	bd	0.8	0.80	0.03	34	bd	bd	0.6	0.60	0.51	57.71
18H	-	-	-	-	-	-	26	bd	bd	1.0	1.00	0.03	26	bd	bd	0.7	0.70	0.55	59.67
19D	-	-	-	-	-	-	27	bd	bd	1.3	1.30	0.18	27	bd	bd	0.9	0.90	0.58	64.43
21D	27	bd	bd	1.1	1.10	0.09	28	bd	bd	1.6	1.60	0.10	32	0.05	bd	0.5	0.55	0.70	63.38
22C	42 b	0.08	bd	1.7	1.78	0.08	42	bd	bd	2.9	2.90	0.07	36 b	0.05	bd	1.1	1.15	0.08	61.85
23B	60	0.08	bd	1.6	1.68	0.03	54	bd	bd	2.2	2.20	0.03	60 b	0.09	bd	1.4	1.49	0.03	46.22
26C	28	bd	bd	1.0	1.00	0.04	30	bd	bd	0.8	0.80	0.03	-	-	-	-	-	-	59.93
26D	30	bd	0.1	3.1	3.10	0.07	26	bd	bd	2.0	2.00	0.06	36	bd	bd	1.5	1.50	0.05	63.48
28D	61 b	bd	bd	0.6	0.60	0.04	55 b	bd	bd	0.5	0.50	0.03	48	0.10	bd	0.7	0.80	0.05	48.38
30A	-	-	-	-	-	-	-	-	-	-	-	-	70	bd	bd	0.6	0.60	0.06	47.28
34A	55	bd	bd	0.7	0.70	0.03	-	-	-	-	-	-	-	-	-	-	-	-	48.44
35A	32 b	bd	bd	0.3	0.30	0.04	-	-	-	-	-	-	36 b	bd	bd	0.4	0.40	0.03	36.76
41A	23 b	bd	bd	bd	bd	bd	14 b	bd	bd	0.4	0.40	0.02	30 b	0.07	bd	0.4	0.47	0.03	40.28
43A	45 b	0.13	bd	1.0	1.13	bd	36 b	bd	bd	1.4	1.40	0.02	34 b	0.05	bd	1.3	1.35	0.02	33.02
45D	50	bd	bd	0.5	0.50	0.03	40	bd	bd	0.5	0.50	0.04	-	-	-	-	-	-	50.59
48A	68 b	bd	bd	0.3	0.30	bd	66 b	bd	bd	0.3	0.30	bd	-	-	-	-	-	-	28.29
51A	-	-	-	-	-	-	-	-	-	-	-	-	-	bd	bd	0.6	0.60	0.04	48.05
52B	67 b	bd	bd	0.4	0.40	0.02	58	bd	bd	0.4	0.40	0.03	72	0.07	bd	0.5	0.57	0.03	41.95

57A	-	-	-	-	-	-	29 b	bd	bd	0.3	0.30	bd	-	-	-	-	-	-	28.29
58E	-	-	-	-	-	-	66	bd	bd	1.0	1.00	0.02	55	bd	bd	0.4	0.40	0.03	43.29
58F	49 b	bd	bd	0.9	0.90	0.02	48 b	bd	bd	1.0	1.00	0.02	-	-	-	-	-	-	37.32
58G	51	bd	bd	0.8	0.80	0.03	63	bd	bd	1.0	1.00	0.04	48	0.05	bd	0.4	0.45	0.03	49.34
58H	40 b	bd	bd	0.8	0.80	0.03	30 b	bd	bd	1.1	1.10	0.03	32 b	bd	bd	0.6	0.60	0.04	47.04
58I	51	bd	bd	0.8	0.80	0.03	63	bd	bd	0.9	0.90	0.03	63	bd	bd	0.2	0.20	0.03	43.54
59B	54	bd	bd	0.7	0.70	0.02	60	bd	bd	0.8	0.80	0.03	55	bd	bd	0.4	0.40	0.03	45.79
64B	90	0.08	bd	0.7	0.78	0.10	93	0.07	bd	1.2	1.27	0.07	91	0.18	bd	0.1	0.28	0.10	41.14
64C	84	0.09	bd	1.0	1.09	0.10	103	0.12	bd	1.1	1.22	0.08	82	0.20	bd	0.4	0.6	0.11	46.05
65B	-	-	-	-	-	-	27	0.08	bd	0.9	0.98	0.08	20	0.07	bd	0.2	0.27	0.09	60.27
66A	-	-	-	-	-	-	-	-	-	-	-	-	24 b	bd	bd	0.6	0.60	0.03	45.37
67A	72	0.18	0.1	1.7	1.88	0.12	72 b	0.15	0.1	2.5	2.65	0.09	-	0.19	0.1	1.4	1.59	0.11	64.38
67C	-	-	-	-	-	-	-	-	-	-	-	-	76	0.09	bd	0.4	0.49	0.11	41.07
70E	43	bd	0.2	1.2	1.20	0.06	40	bd	bd	1.2	1.20	0.07	42	bd	bd	0.5	0.50	0.09	56.00
72A	48	bd	bd	0.8	0.80	0.04	43	bd	bd	1.0	1.00	0.04	52	bd	bd	0.5	0.50	0.09	51.56
74B	37	bd	bd	0.9	0.90	0.06	48	bd	bd	0.8	0.80	0.05	38	bd	bd	0.8	0.80	0.06	56.80
74C	-	-	-	-	-	-	41	bd	bd	1.2	1.20	0.05	47	bd	bd	0.5	0.50	0.05	54.69
74D	35	bd	0.1	1.2	1.20	0.05	48	bd	bd	0.8	0.80	0.05	36	bd	bd	0.5	0.50	0.05	56.49
80A	52	bd	0.1	0.6	0.60	bd	49	bd	bd	0.4	0.40	bd	65	bd	bd	0.5	0.50	bd	37.22
82A	32	bd	0.1	1.0	1.00	0.02	39	bd	bd	1.0	1.00	0.03	43	bd	bd	0.5	0.50	0.03	51.60
83A	50	bd	0.1	0.5	0.50	0.02	40	bd	bd	1.2	1.20	0.03	60	bd	bd	0.5	0.50	bd	44.84
85C	72 b	0.13	0.1	1.4	1.53	0.02	72 b	bd	bd	1.7	1.70	0.03	78 b	bd	bd	1.1	1.10	bd	35.54
88B	36	0.10	0.2	1.6	1.70	0.06	54	bd	bd	1.1	1.10	0.04	31	0.07	bd	1.6	1.67	0.05	58.49
90A	32	0.05	0.1	1.2	1.25	0.03	45	bd	bd	1.5	1.50	0.03	38	bd	0.10	0.9	0.90	0.02	51.72
91A	46	bd	bd	0.6	0.60	0.02	60 b	bd	bd	0.5	0.50	bd	63	-	-	-	-	-	36.45
91B	35 b	bd	bd	0.7	0.70	bd	35 b	bd	bd	0.4	0.40	0.02	-	-	-	-	-	-	31.01
Median		0.08	0.10	1.00	1.00	0.04		0.10	0.10	1.10	1.10	0.04		0.07	0.10	0.50	0.59	0.05	49.97
Max		0.18	0.20	3.10	3.10	0.21		0.15	0.10	2.90	2.90	0.4		0.20	0.10	1.60	1.67	0.7	80.15

Secchi Depth, inches. b: disk visible on bottom.	TKN = Total Kjeldahl Nitrogen (organic + NH ⁴)	High levels of nutrients in our canals can indicate the presence of fertilizer runoff or effluent from wastewater or septic systems. Excessive nutrients can lead to nuisance plant growth and algal blooms.
NO ³ = Nitrate (inorganic)	TN = Total Nitrogen (inorganic + organic)	
NH ³ = Ammonia (inorganic)	TPO ⁴ = Total Phosphate	

All nutrient concentrations shown in mg/L

TSI = Trophic State Index, a quick indicator of canal health. 47 sites this quarter scored as GOOD (<60). 9 sites scored FAIR (60-70), and two were POOR (>70).

As we enter the dry season, expect Secchi Depths to increase. We will probably also see more instances of the Secchi disk being visible on the canal bottom.

October

6th Canalwatch

11th Columbus Day

16th Cape Coral Farmers
Market Begins at Club Square
capecoralfarmersmarket.com

23rd Native Plant Sale
Manatee Park Fort Myers
9am – 2pm
fnpscocoloba.org

29th Caloosa Blueway
Paddling Festival
Pine Island and
Lovers Key State Park
caloosabluewaypaddlingfestival.com

November

3rd Canalwatch
(Rotary Park event)

11th Veterans Day
(9th annual Veterans Day Parade
on SE 47th Terrance 4pm – 6pm)

12th – 14th Coconut Festival
Sunsplash Fairgrounds
cocofest.com

20th CHNEP Nature Festival
10am – 3pm
Charlotte Sports Park
chnep.org

25th Thanksgiving

December

1st Canalwatch

25th Christmas

City of Cape Coral
Environmental Resources
P.O. BOX 150027
Cape Coral, FL 33915-0027